

KHOLODEYY, Nikolay Grigor'yevich; BELOKON', I.P., redaktor; ZEROV, D.K.,  
redaktor; OKAMENKO, A.S., redaktor; POGRIBNIAK, P.S., redaktor;  
HURENCHIK, L.I., redaktor; SHILO, V.H., redaktor izdatel'stva;  
SIVACHENKO, Ye.K., tekhnicheskij redaktor

[Selected works; in three volumes] Izbrannye trudy; v trekh tomakh.  
Kiev, Izd-vo Akademii nauk USSR. Vol.2. [Works on the physiology  
of plants] Raboty po fiziologii rastenii. 1956. 388 p. (MLRA 9:11)  
(Botany—Physiology)

KHOLODNYIY, Nikolay Grigor'yevich; BELOKON', I.P., redaktor; ZEROV, D.X.,  
redaktor; OKANENKO, A.S., redaktor; POGREBHYAK, P.S., redaktor;  
RUBENCHIK, L.I., redaktor; SEMIROVSKIY, R.M., redaktor; SIVACHEV-  
KO, Ye.K., tekhnicheskii redaktor.

[Selected works in three volumes] Izbrannye trudy v trekh tomakh.  
Kiev, Izd-vo Akademii nauk USSR. Vol.1. [Works on plant physiolo-  
gy] Raboty po fiziologii rastenii. 1956. 478 p. (MLRA 9:6)  
(Botany--Physiology)

OKANENKO, A.S.

Making use of the physiological and biochemical characteristics of various beet forms for increasing the sugar content of the sugar beet. Agrobiologiya no.5:3-15 '56. (MLRA 9:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zakharnoy sverkly laboratoriya fiziologii, Kiyev.  
(Sugar beet breeding)

OKANENKO, A.S.  
USSR/Plant Physiology - Growth and Development,

I-5

Abs Jour : Ref Zhur - Biol., No 5, 1958, 20000

Author : Liubinsky, N.A., Okanenko, A.S.

Inst :

Title : A Summary of the Discussion on Phytohormones.

Orig Pub : Ukr. botanichnii zh., 1956, No 4, 13, 83-104.

Abstract : In a survey article N.A. Liubinsky and A.S. Okanenko summarised the discussion on phytohormones which was carried on in pages of the Ukrainian Botanical Journal in the period 1952-1955. The majority of the participants in the discussion condemned the negative approach to the problem of phytohormones. A detailed evaluation of their role as regulators of growth and other life processes in plants was given, and paths for further study of natural and synthetic growth agents were indicated. Vlasiuk P.A., Porutsky G.V., Chailakhian M.Kh., Matskov F. and Gupalo P.I. pointed out in letters to the editor

Card 1/2

15/11/86 11:55  
KHOLODNYY, Nikolay Grigor'yevich; BELOKON', I., redaktor; ZEROV, D.K.,  
redaktor; OKHARENKO, A.S., redaktor; POGRIMBYAK, P.S., redaktor;  
RUBENCHIK, L.J., redaktor; SHILO, V.H., redaktor izdatel'stva;  
SIVACHENKO, Ye.L., tekhnicheskij redaktor

[Selected works; in three volumes] Izbrannye trudy; v trekh tomakh.  
Kiev, Izd-vo Akad.nauk USSR. Vol.3 [Works on microbiology and  
plant ecology] Raboty po mikrobiologii i ekologii rastenii. 1957.  
(MLRA 10:7)

525 p.  
(Microbiology) (Botany--Ecology)

USSR / Plant Physiology. Mineral Nutrition.

I

Abs Jour: Ref Zhur-Biol., No 2, 1959, 5905.

Author : Maksimovich, A. Ye.; Okanenko, A. S.; Bakhir,  
A. I.

Inst : AS USSR.

Title : Some Mechanisms in the Storage of Root Nutri-  
tional Elements in Sugar Beets.

Orig Pub: V sb.: Pamyati akad. N. A. Maksimova, N., AN  
SSSR, 1957, 257-267.

Abstract: Sugar beets were grown in Kiev under conditions  
of soil cultures, as a vegetation experiment,  
and under field conditions. In experiments where  
N was applied in the form of  $\text{NO}_3^-$ , in the first  
vegetation phases and in the period of intensive  
growth, the ratio of the sum of cation milli-  
equivalents to the sum of N, P, S, and Cl milli-

Card 1/2

USSR/Cultivated Plants - Commercial. Oil-Bearing. Sugar-Bearing. M-5

Abs Jour : Ref Zhur - Biol., No 7, 1958, 29937

Author : Maksimovich, A.Ye., Bakhir, A.I., Okanenko, A.S.

Inst : The All-Union Scientific Research Institute for the Sugar Beet.

Title : Sugar Beet Saccharinity in Regard to the Steeping of Root Tissues.

Orig Pub : Fiziol. rasteniy, 1957, 4, No 2, 192-198 (resume in Eng.)

Abstract : This study was made at the All-Union Scientific Research Institute for the Sugar Beet in 1949-1953 in raising sugar beets for varieties tending toward sugary and productive forms in vegetative tests as well as under field conditions in Kiyevskaya, Voronezhskaya, Vinnitskaya and Cherkasskaya oblasts. With the usual sugar content in the beet of 16-21% in crude weight its dry matter root

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OKANENKO, A.S.

USSR/General Problems. Methodology. History. Scientific  
Institutions and Conferences. Teaching. Problems  
of Bibliography and Scientific Documentation.

Abs Jour : Ref Zhur-Khimiya, No 6, 1958, 16687

Author : Lyubinskiy M. A., Okanenko A. S.

Inst : Not given

Title : Development of the Physiology and Biochemistry  
of Plants in the Ukraine in Forty Years (1917-  
1957).

Orig Pub : Ukr. botanichniy zh., 1957, 14, No 3, 42-52

Abstract : No abstract

Card 1/1

OKANENKO, A.S.; BERSHTEYN, B.I.

Studying the biochemical characteristics of potato varieties  
susceptible and resistant to *Synchytrium endobioticum*.  
Biokhim. pl. i ovoshch. no. 4:118-142 '58. (MIRA 11:10)

1. Institut fisiologii rasteniy i agrokhimii AN USSR.  
(Potato wart)

OKANENKO, A.S.; BERSHTEYN, B.I.; POCHINOK, Kh.N.; GAMAYUNOVA, M.S.

Characteristics of biochemical processes occurring during "Gothic"  
degeneration of potatoes. Biokhim. pl. i ovoshch. no.4:164-182  
'58. (MIRA 11:10)

1. Institut fiziologii rasteniy i agrokhimii AN USSR.  
(Potatoes--Diseases and pests)

## AUTHORS:

Bershteyn, B. I., Pomyuk, N. K.,  
Okanenko, A. S.

Soy/ 20-120-2-58/63

## TITLE:

The Influence of the Degeneration of the Type "Gothic"  
(Spindle-Tuber) on the Amino Acid Content in Potato  
Tubers (Vliyanie vyzrashcheniya tikan gotiki na soderzhaniiye  
aminokislot v klubnyakh kartofelya.)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, vol. 120, Nr 2,  
pp. 425-428 (USSR)

## ABSTRACT:

Among the processes that accompany the degeneration of potatoes, the derangement of the nitrogen-metabolism is the most characteristic one. It was proved in several works (references 1,2) that in the case of an affection with "gothic", a double amount of non-protein is contained in the potato tubers, especially of amino nitrogen as compared to the healthy ones. Essential differences concerning protein-nitrogen were not reported. Table 1 shows data on the mentioned nitrogen-contents. These data show that independent from the origin of the gothic degeneration (whether caused by different forms of nutrition or by artificial affection), analogous derangements of the nitrogen-metabolism are caused

Card 1/4

The influence of the Degeneration of the Type "Gothic" (Spindle-Tuber) on the Amino Acid Content in Potato, Tubers SOV/ 20-120-2-58, '65

with different types of potatoes. Table 1 shows a considerable increase of amino-nitrogen in the tubers, in the case of an affection by "gothic". In order to clarify variations in the existence of the free amino acids, healthy and diseased tubers were investigated by means of two-dimensional distribution-chromatography. Furthermore the existence of amino acids of the protein hydrolyzate was determined. The main part of the proteins and of the free amino acids is concentrated in the juice of the tubers (references 3-5). In the 70° ethanol extract no differences could be proved, but the chromatograms of the amino acids in the juice were more distinct. The methodology of determination is described. Table 2 and figure 1 show the results. On table 2 we can see that the juice of the degenerated tubers contains 17 amino acids (among them 2 amides), whereas in the juice of healthy tubers there are only 12 amino acids. In the degenerated tubers there is 2 to 3 times more asparagine, glutamine of

Card 2/4

The Influence of the Degeneration of the Type  
"Gothic" (Spindle-Tuber) on the Amino Acid Content in  
Potato Tubers

SOV/20-120-2-58/63

the group: Methionine + valine + tryptophane and of the leucine group, but less cystein, glutamine acid and asparagine acid than in healthy ones. In the latter ones no  $\alpha$ -alanine,  $\omega$ - and  $\gamma$ -amino butyric acid, proline and tyrosine were determined. The amount of amino nitrogen is the same in the proteins of diseased and healthy tubers. After the separation of the protein hydrolyzate by means of chromatography, in the proteins of both, healthy and degenerated tubers, 15 amino acids were determined. Comparing the data of Mul'der and Bakema (Mulder and Bakema), (reference 5) with the results obtained by the authors, one can recognize that a surplus nitrogen-nutrition changes the nitrogen-metabolism in the same direction as the gothic disease. A surplus of potassium and phosphorus acts in a contrary direction. The too extensive nitrogen nutrition increases the susceptibility to gothic, whereas potassium and phosphorus increase the resistance against it (references 7-9). There are 2 fig.res., 2 tables, and 12 references, 8 of which are Soviet.

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The influence of the Degeneration of the Type "Gothia" SUV/20-120-2-58/63  
(Spindle-Tuber) on the Amino Acid Content in Potato Tuber

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut fiziologii  
rasteniy (Ukrainian Scientific Research Institute for  
Plant-Physiology)

PRESENTED: December 20, 1957, by A. L. Kursanov, Member, Academy of  
Sciences, USSR

SUBMITTED: March 30, 1957

1. Potatoes--Pathology    2. Potatoes--Chromatographic analysis  
3. Amino acids--Determination

Card 4/4

SHVERTSEL', T.V., OKANENKO, A.S.

Role of leaves in the accumulation of sugars and the formation of  
anatomical characteristics in sugar beet roots. Fiziol. rast. 8  
no.2;145-152 '60. (MIRA 14:3)

1. Ukr-Union Sugar beet scientific research institute, Kiev,  
(Leaves) (Sugar beets) (Roots(Botany))—Anatomy

ORLOVSKIY, N.I. [Orlovs'kyi M.I.]; FILATOVA, T.A.; OKANENKO, A.S.; OOMOLYAKO,  
S.Ye. [Homoliako, S.IB.]

Professor Aleksandr Aleksandrovich Tabentskii; on his 70th birthday  
and 50th anniversary of his scientific activities. Ukr. bot. zhur.  
17 no.5:113-114 '60. (MIRA 13:12)  
(Tabentskii, Aleksandr Aleksandrovich)

OKARENKO, A.S.; BERESHTYN, B.I.

Proteins of wart excrescences in potatoes infected with *Synchytrium endobioticum*. Dokl. AN SSSR 134 no. 3:727-730 S '60. (MIRA 13:9)

1, Ukrainskiy nauchno-issledovatel'skiy institut fiziologii rasteniy  
Predstavлено акад. А.И. Опарином.  
(Potato wart) (Oxidases)

BERSHTEYN, B.I.; LEONT'YEVA, Yu.A.; OKANENKO, A.S.

Effect of different types of degeneration on the amino acid  
content of potato tubers. Dokl. Akad. SSSR 134 no.4:976-979 O  
160. (MIRA 13:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut fiziologii  
rasteniy. Predstavleno akademikom A.I. Oparinym.  
(POTATOES--DISEASES AND PESTS)  
(AMINO ACIDS)

OKANEMAC, A. S., BATYUK, V.P., GRODZANSKIY, D. M., (USSR)

"Respiration in the Leaves of Sugar Beet in  
Daylight Concurrent with Photosynthesis."

Report presented at the 5th Int'l. Biochemistry Congress,  
Moscow, 10-16 Aug 1961.

OKANENKO, A. S., BERSHTEYN, B. I., and BEYNGARD, T. A. (USSR)

"The Proteins and Nucleic Acids of the Cancerous Warts in Potatoes  
Infected with Synchitrium endobioticum."

Report presented at the 5th International Biochemistry Congress,  
Moscow, 10-16 Aug 1961

OKANENKO, A.S.; REYNGARD, T.A.; BERSHTEYN, B.I.; OSTAPLYUK, A.N.

Biochemical characteristics of normal and degenerated potatoes.  
Biokhim. pl. i ovoshch. no. 7:85-95 '62. (MIRA 16:1)

1. Ukrainskiy nauchno-issledovatel'skiy institut fiziologii  
rasteniy. (Potatoes—Diseases and pests)

OKANENKO, A., doktor biolog.nauk, prof.

Origin of life on earth. Nauka i zhyttia 12 no.10, 28-30 0  
'62. (MIRA 16:1)

1. Zaveduyushchiy laboratoriyyey fotosinteza Instituta fiziologii  
rasteniy AN UkrSSR.  
(Photosynthesis)

VLASYUK, P.A., akademik, otcv. red.; MANORYK, A.V. [Manoryk, A.V.], kand. biol. nauk, red.; OKANENKO, A.S., doktor biol. nauk, red.; OSTROVSKAYA, L.K. [Ostrovs'KA, L.K.], doktor biol. nauk, red.; KALININ, F.L., doktor biol. nauk, red.; PROTSENKO, D.P., prof., red.; KAPITANCHUK, V.A., nauchn. sctr., red.; BLANINA, L.P., red.; LAPCHENKO, K.P., tekhn. red.

[Physiological and biochemical principles underlying increase in the productivity of plants] Fiziologo-biokhimichni osnovy pidvyshchennia produktyvnosti roslyn; pratsi. Kyiv, Derzhsil'hospvydav URSR, 1963. 458 p. . . (MIRA 16:10)

1. Ukrains'ka Respublikans'ka naukova konferentsiia molo-dykh uchenykh v haluzi fizjologii roslyn, 1st, 1962.
2. Akademiya nauk Ukr.SSR i Vsesoyuznaya akademiya sel'sko-khozyaystvennykh nauk imeni V.I.Lenina (for Vlasuk).  
(Plant physiology) (Plants, Cultivation)

ORLOVSKIY, N.I.; OKARENKO, A.S.

Professor Aleksandr Aleksandrovich Tabantskii, 1860-1964; obituary.  
Fiziol. rast. 11 no.6:1115-1116 N-D '64. (MIRA 18:2)

ORLOVSKII, N.N. [Orlova'kyi, M.I.]; OKANENKO, A.S.

Oleksandr Oleksandrovych Tabents'kyi, 1890-1964. Ukr. bct.  
(MIRA 18;2)  
zhur. 21 no.6:93-94 '64.

OKANENKO, Arkadiy Semenovich; KURSANOV, A.L., akademik, otv.  
red.; MATVEYENKO, T.A., red.

[Physiology of sugar beets and breeding problems] Fizio-  
logija sakharnoi svekly i voprosy selektsii. Moskva, Nauka,  
1965. 74 p. (Timiriazevskie chtenija, no.24)  
(MIRA 18:8)

OKARENKO A.S., doktor biol. nauk, otv. red.; KUZNETSOVA, A.S.,  
1961.

[Photosynthesis and pigments as factors affecting crops]  
Fotosintez i pigmenty kak faktory urozhaina. Kiev, Naukova  
dumka, 1965. 186 p.  
(MIRA 18:9)

1. Akademiya nauk UkrSSR, Kiev.

OSTROVSKAYA, L.K., doktor biol. nauk; otv. red.; VLASYUK, P.A., akademik, red.; MANGRIK, A.V., kand. biol. nauk, red.; KALININ, F.L., doktor biol. nauk, red.; OKANENKO, A.S., doktor biol. nauk, red.; PROTSENKO, D.F., doktor biol. nauk, red.; SIROCHENKO, I.A., doktor biol. nauk, red.; KAPITANCHUK, V.A., red.; MAKAROVA, G.M., red.

[Complexons as a means against lime-induced chlorosis of plants] Kompleksony kak sredstvo protiv izvestkovogo khloroza rastenii. Kiev, Naukova dumka, 1965. 194 p. (MIRA 18:7)

1. Institut fiziologii rasteniy AN Ukr.SSR (for Ostrovskaya). 2. AN Ukr.SSR (for Vlasyuk).

VLASYUK, P.A., akademik, oty. red.; OKANENKO, A.S., doktor biol. nauk, red.; MANORIK, A.Y., kand. biol. nauk, red.; KALININ, F.L., doktor biol. nauk, red.; PROTSENKO, D.F., doktor biol. nauk, red.; SIROCHENKO, I.A., doktor sel'khoz. nauk, red.; KAPITANCHUK, V.A., red.; ANDRIYCHUK, M.D. red.

[Photosynthesis and crop yields] Fotosintez i produktivnost' rastenij. Kiev, Naukova dumka, 1965. 280 p.  
(MIRA 18:6)

I. Akademiya nauk URSS, Kiev. Instytut fiziologii roslyn ta agrokhimii.

1.8000

26488  
S/125/61/000/009/013/014  
D040/D113

AUTHORS: Okara, V.G.; Fedoruk, V.M.; Shatayle, D.V.

TITLE: Experience in using an Eu-152/154 radioactive isotope for controlling the quality of the welds

PERIODICAL: Avtomaticheskaya svarka, no. 9, 1961, 85-88

TEXT: Information is presented on weld inspection techniques employed at the Zavod metallokonstruktsiy im. Babushkina (Metal Structures Plant im. Babushkin) in Dnepropetrovsk. The plant is producing steelwork structures as well as machinery structures, steel ladles, and blast furnace casings. Formerly used Co<sup>60</sup> in PYU-1 (RUP-1) X-ray apparatus has been replaced by Eu-152/154 which produces better pictures and has soft radiation. A new work container for Eu-152/154 has been developed lately, designed for work with europium of 1 g-equiv activity of radium. The apparatus consists of a spherical lead container, a support, and a folding tripod. The protection container of the apparatus permits work with radioactive europium of up to 1 g-equiv as well as with cobalt of 0.5 g-equiv. The container is shown in 

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D040/D113

Experience in using ....

a diagram (Fig.3) where (1) is its spherical brass casing 180 mm in diameter, filled with lead, and (2) is the removable part containing the radioactive isotope (3) that is placed in a shell (4). The removable part rotates on ball bearings about its axis and is driven by a worm gear drive (5) actuated by a handle through a 2-m-long flexible shaft. Irradiation is only possible through the conical window (7) with an 80° opening. The radioactive preparation is moved into the center of the ball (as shown by dotted lines) for the time of transportation and storage so as to keep it enclosed in lead. Irradiation is possible also from the transport carriage. A special carriage (seen in photograph) has been built for welds inspection in large gas container shells. The carriage is standing on rails, and the container is rotated past it on a roller stand. A small protective casing from a different apparatus has to be used instead of the big one in spots not accessible for large casing, and a special lead cover is then placed over the small protective casing. The new apparatus is safe for operators and handy. There are 4 figures.

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Experience in using ....

26488  
S/125/61/000/009/013/014  
D040/D113

ASSOCIATION: Dnepropetrovskiy zavod metallokonstruktsiy im.Babushkina  
(Dnepropetrovsk Metal Structures Plant im.Babushkin)

SUBMITTED: April 20, 1961

Card 3/4

LEBED', D.P., kand.tekhn.nauk; OKARA, V.G., izsh.

Automatization and mechanization of welding operations at  
the Babuchkin Metalwork Plant in Dnepropetrovsk. Svar. proizv.  
no. 10:3-6 0 '61. (MIRA 14:9)  
(Dnepropetrovsk—Metalwork—Welding)

OKARA, V.G.; CHEPUR, A.Ye.

Continuous line for the production of wide-flange I-beams.  
Biul.tekh.-ekon.inform. No.12:3-5 '61. (MIRA 14:12)  
(Rolling mills)

LEBED', D., kand.tekhn.nauk; OKARA, V.G.

Introduction of advanced welding techniques. Prom. stroi.  
i inzh. soor. 4 no.3:9-12 My-Je '62. (MIRA 15:7)

1. Direktor zavoda imeni Babushkina (for Lebed'). 2. Glavnnyy  
svarshchik zavoda imeni Babushkina (for Okara).  
(Welding)

LERED', D.P.; OKARA, V.G.

Specialized assembling and welding area for the manufacture of  
gas holders. Avtom. svar. 15 no.1:73-76 Ja '62. (MIRA 14:12)

1. Ordena Trudovogo Krasnogo Znameni Dnepropetrovskiy zavod  
metallokonstruktsiy imeni Babushkina.  
(Gas holders—Welding)

LEBED', D.P., VOROB'YEV, V.M.; SIDORUK, V.S.; OKARA, V.G.

Automatic square-butt welding of metal having a thickness of  
40mm using a flux padding and a DTS-24 welding tractor. Avtom.  
svar, 15 no.9:79-81 S '62. (MIRA 15:9)

1. Dnepropetrovskiy ordena Trudovogo Krasnogo Znameni zavod  
metallokonstruktsiy im. Babushkina.  
(Plates, Iron and steel--Welding)  
(Electric welding--Equipment and supplies)

LEBED', D.P.; OKARA, V.G.

Manufacture of welded steel-pouring ladles. Avtom, svar. 16  
no. 7;79-83 Jl '63. (MIRA 16:8)

1. Dnepropetrovskiy zavod metallokonstruktsiy im. Baturshkina.  
(Smelting—Equipment and supplies)  
(Plates, Iron and steel—Welding)

LEBED', D.P.; VOROB'YEV, V.M.; OKARA, V.G.; SIDORUK, V.S.

Semiautomatic welding with powder wire. Avtom. svar. 18  
no.8:54-55 Ag '65. (MIRA 18:11)

1. Dnepropetrovskiy zavod imeni Babushkina.

OKARMUS, W.

\*Predecessor of the Mucha 100 Glider was the Kite." (To be Contd.) P. 501.  
(SKRZYDŁATA POLSKA, Vol. 10, No. 32, Aug. 1954, Warszawa, Poland)

SO; Monthly List of East European Accessions, (EEAL), LC, Vol. 4,  
No. 1, Jan. 1955 Uncl.

OKARMUS, W.

"Predecessor of the Mucha 100 Glider was the kite," (Conclusion), p. 517.  
(SKRZYDŁA POLSKA, Vol. 10, No. 33, Aug. 1954, Warszawa, Poland)  
SO; Monthly List of East European Acquisitions, (EEAL), LC, Vol. 4,  
No. 1, Jan. 1955 Uncl.

LEVSTIGNEVA, R.P.; GLYBINA, V.A.; OKART, Ye.V.; PREOBRAZHENSKIY, N.A.

Claisen condensation of esters of  $\beta$ -methyllevulinic acid.  
Zhur. ob. khim. 30 no.7:2261-2263 Jl '60. (MIRA 13:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii.  
(Levulinic acid)

GLYBINA, V.A.; OKART, Ya.V.; YEVSEIGNEVA, R.P.; PREOBRAZHENSKIY, N.A.

Synthesis of esters of 3,8,13-trimethyl-4,6,9,11,14-pentaketo-pentadecanoic and 2,8,13,18-tetramethyl-4,6,9,11,14,16,19-heptaketoeicosanoic acids. Zhur. ob. khim. 30 no.8:2536-2539  
(NIRI 13:8)  
Ag '60.

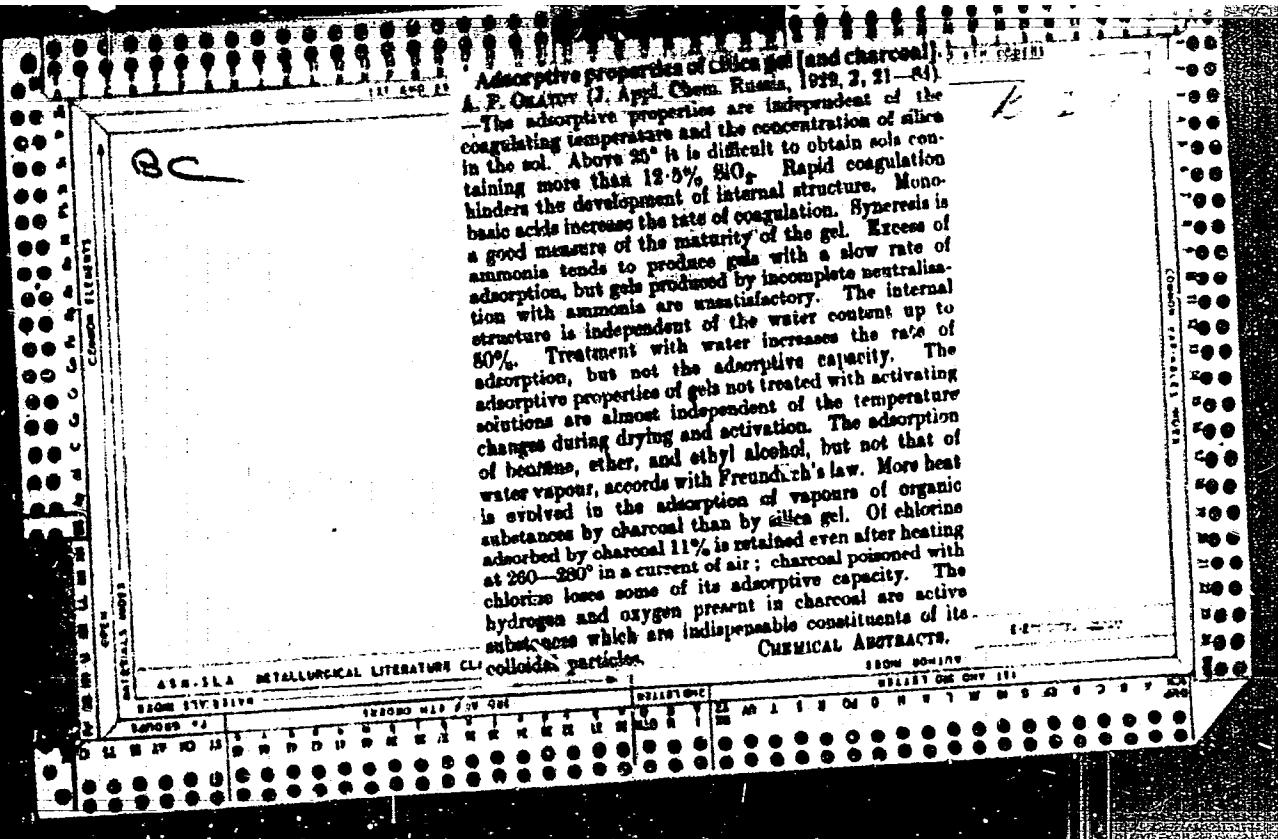
1. Moskovskiy institut tonkoy khimicheskoy tekhnologii.  
(Pentadecanoic acid)  
(Eicosanoic acid)

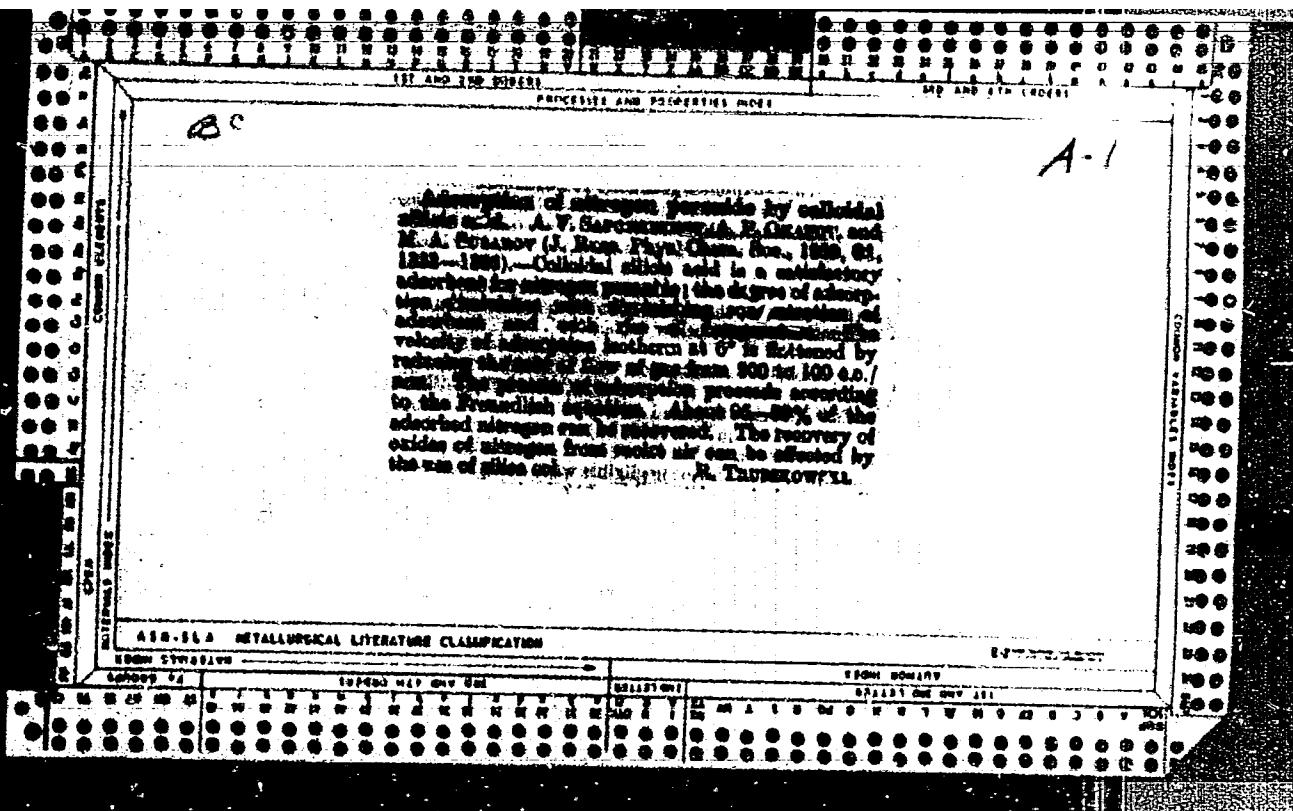
OKASJYRAM W,

OKASJYRAM W, The West European chemical industry, some developmental trends and achievements. 9(to be cont.) p. 310

Vol 9, no. 11, Nov. 1956  
ACTA PHYSICOLOGICA POLONICA  
SCIENCE  
Warszawa, Poland

So: East European Accession vol 6, no. 3, March 1957





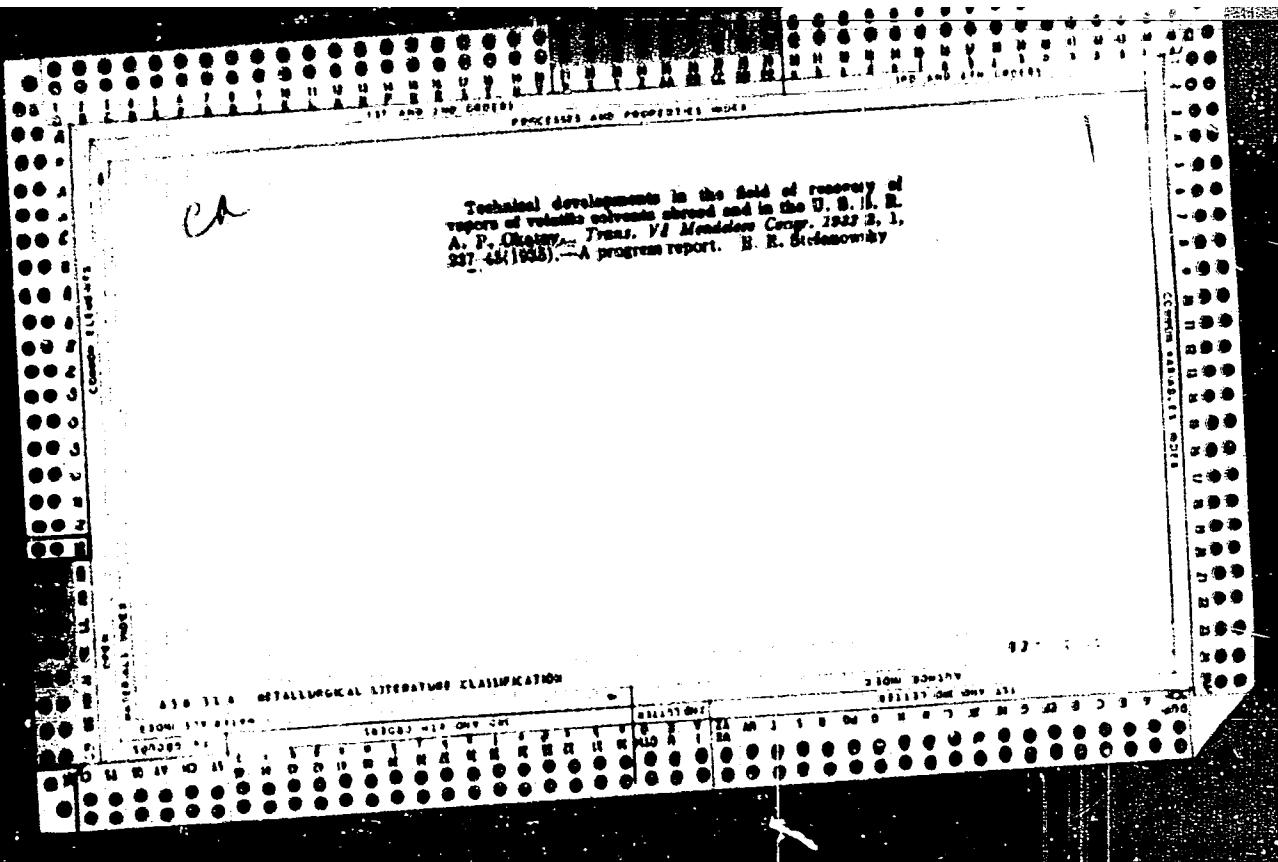
**Adsorption of nitrogen tetroxide by colloidal silicic acid.** A. P. URAKOV AND I. A. KHAINIKH. *J. Russ. Chem. (U. S. S. R.)* 1, 1181-92 (1931).—The work was continued (*ibid.* C. A. 24, 3412) with lower concns. (0.5-2.6% by vol.) of  $N_2O_4$  than were used previously. A single sample of  $SiO_2$  gel served as the adsorbent. It was regenerated after each expt. by heating to 200-220° in a current of dry air.  $N_2O_4$ , dissolved in air, was passed over the gel for half an hr. at the rate of 202.6 cc. per min. Firsovich's adsorption isotherm was again found to hold, after correction for the division of the gas. The values of  $\gamma/m$  were 9.13, 12.83, 15.28% at 0°; 3.73, 5.33, 7.85, 10.15, 18.31% at 30°. The values of  $\gamma/m$  were 4.02, 5.40, 6.83% at 20°; 2.28, 3.65, 3.49, 3.90% at 30°. Hence colloid silica is a satisfactory adsorbent at low concns. of  $N_2O_4$ . B. SOVYNOV

**APPROVED FOR RELEASE: 06/15/2000**

CIA-RDP86-00513R001237910003-5"

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001237910003-5

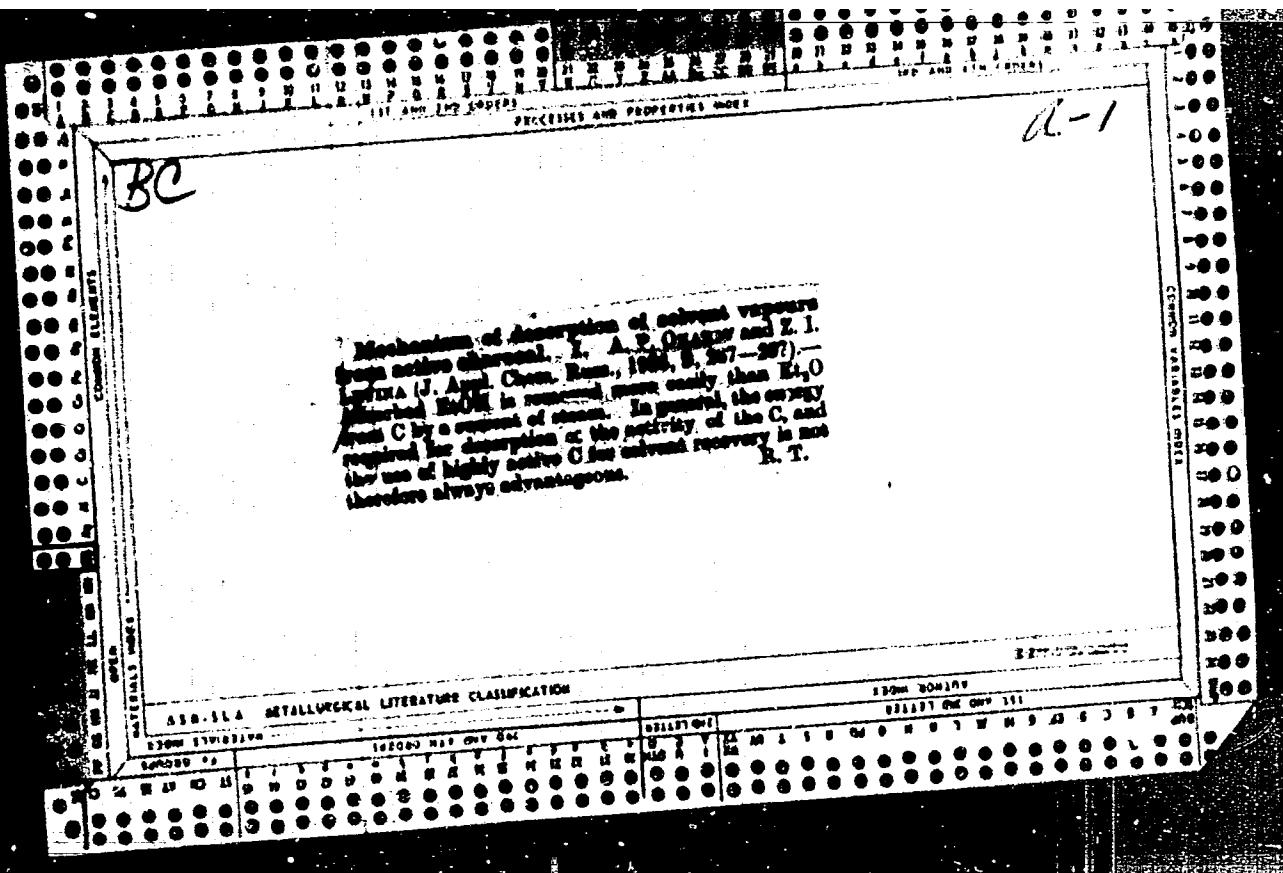


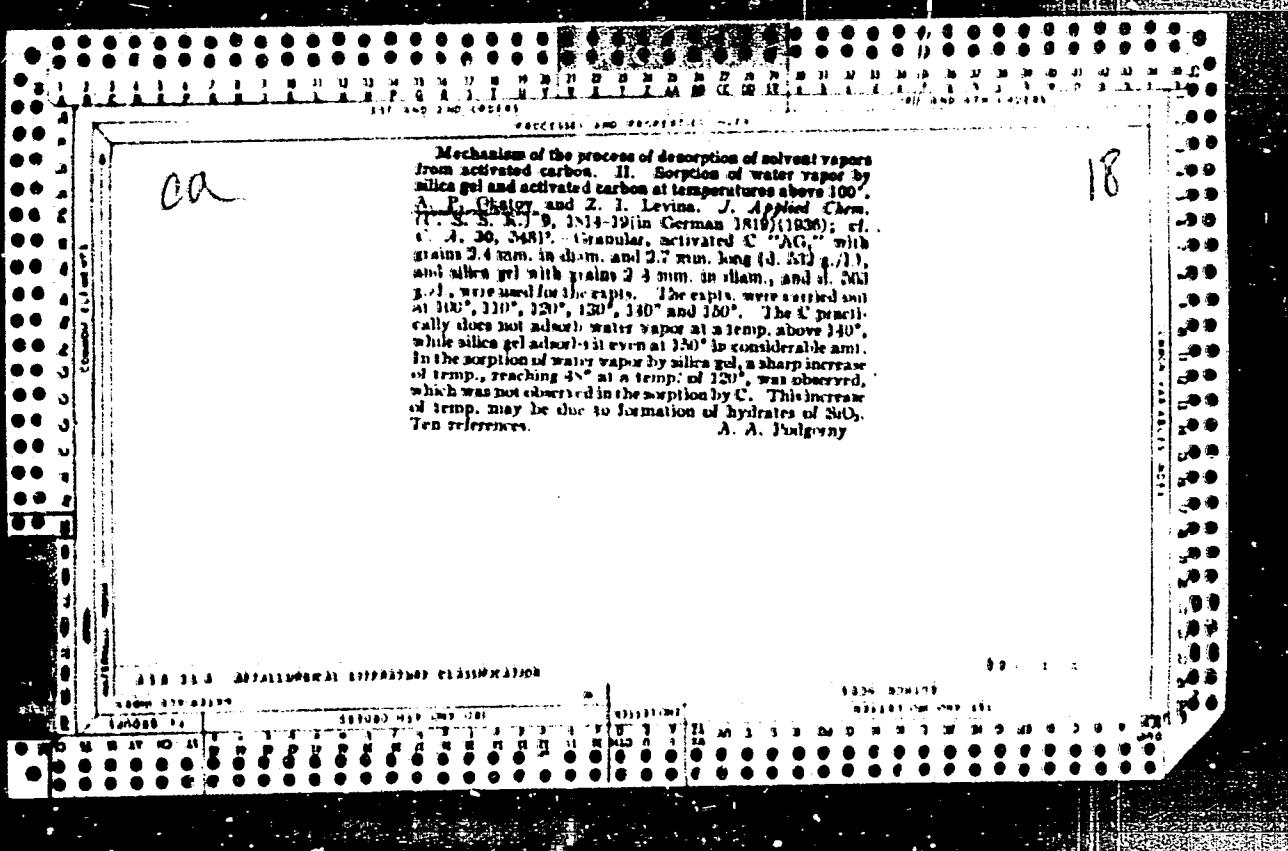
APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001237910003-5"

**Interaction of cellulose esters with solvents.** A. V. Chalus and Z. I. Emmanuilova. *J. Applied Chem. (USSR)*, 8, 1248 (in English) 1283 (1935).  
Expts. in terms of heats of wetting and swelling of silica gel with H<sub>2</sub>O and Cello and of nitrocellulose with 12.3% H<sub>2</sub>O and 15.3% N with various mixts. of EtOH and Et<sub>2</sub>O in a calorimeter, consisting of a water thermostat contg. a Dewar flask, are described. Conclusions: The interaction of cellulose nitrates with various solvents proceeds in 3 stages: wetting, swelling and sol formation. The wettability depends on the chem. and phys. properties of a nitrocellulose and a solvent. A solvent penetrates the capillary surfaces and intermicellar cavities formed in wetting and forms solvate films in and about the micelles, causing their distortion. The formation of thin solvate films results in a limited gel swelling II; however, the solvation proceeds energetically, forming films of such dimensions that the intermicellar forces of attraction become insignificant, then the micelles are uniformly distributed by diffusion in the liquid forming sol. The osmotic pressure within the gel, caused by the soln. of a certain part of gel in the capillaries and intermicellar cavities (cf. Northrop and Kunitz, *C. A.* 21, 1045) is also probably an important factor. Study of the heats of wetting of silica gel with H<sub>2</sub>O and Cello at temps. varying between 20° and 30° showed no lowering of the thermal effect. Similar expts. with cellulose nitrates

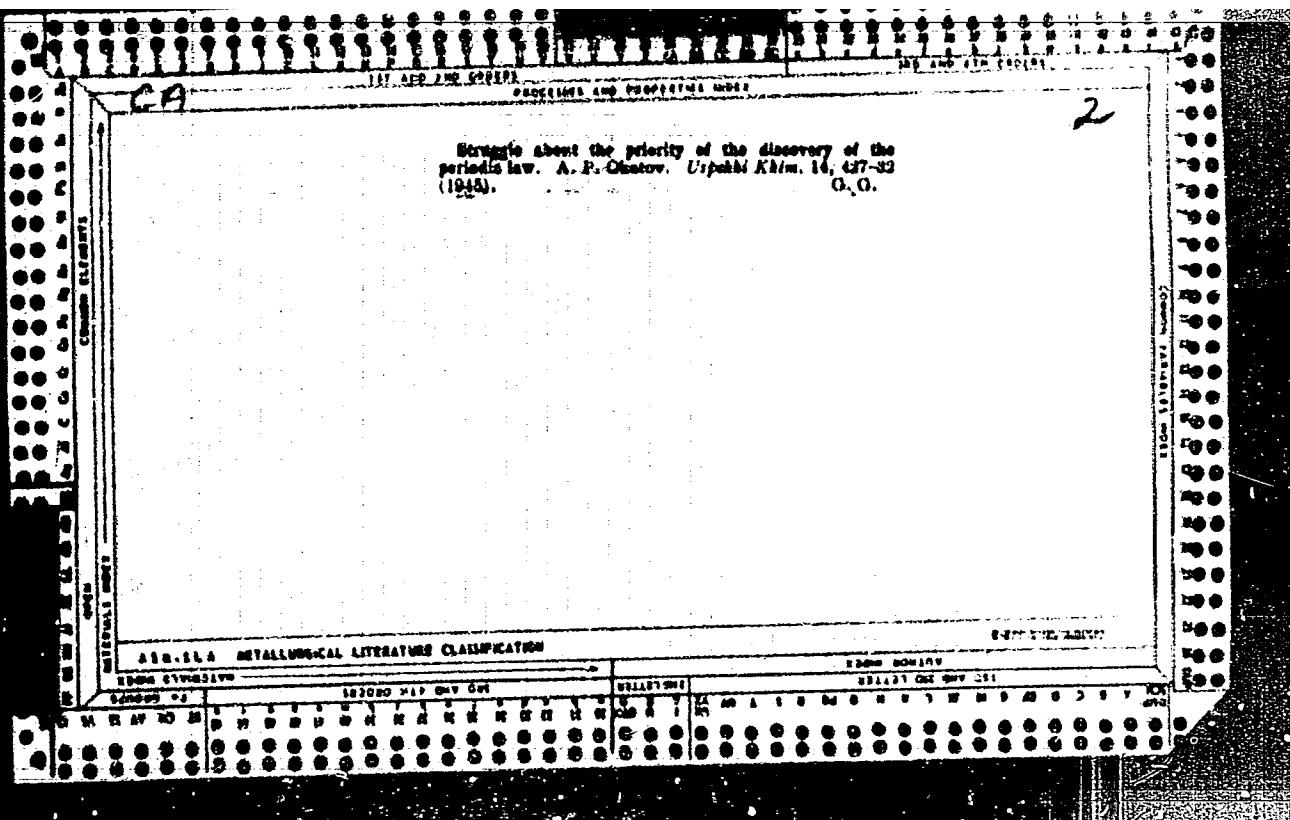
showed that the greatest thermal effect results with a mixt. of EtOH and Et<sub>2</sub>O in equal proportions, and that the thermal effect decreases with increasing ratio of Et<sub>2</sub>O in the mixt.. The min. thermal effect is obtained with Et<sub>2</sub>O alone, which for highly nitrated nitrocellulose is negl. These results indicate (as usually the chem. nature of the interaction of nitrocellulose with a solvent. Thermodynamically the swelling process should proceed more energetically at low temp., and high pressures. It was actually found that at the temp. of evapn. of solid Et<sub>2</sub>O the processes of swelling and sol formation proceed very rapidly. The greatest rate was attained with equal mixts. of EtOH and Et<sub>2</sub>O, which gradually decreases with the increasing ratio of Et<sub>2</sub>O in the solvent. It follows that by interaction with solvents there is a limited swelling of 1 part of cellulose nitrates and sol formation of another. In pressing, a further swelling of the insolubly swollen gel at the expense of the solvent contained in highly swollen micelles of the sol takes place. As a result a plastic mass with varied amt. of homogeneously swollen gel is obtained. At the same time the sol, by losing its solvent, forms a gel, i.e., becomes gelated. The effusion, production of nitrocellulose plastic and a uniform colloidal emulsion, should be directed toward lower temps., and higher pressures for a longer time. Chas. Blum





Methods of recovery of volatile solvents and its importance in national economy. A. P. Okatov. Org. Chem. Ind. U.S.S.R. 6, 123 (1959). A discussion of Soviet and foreign practices. Twenty-five references. Chas. Blane

339-360 METALLURGICAL LITERATURE CLASSIFICATION

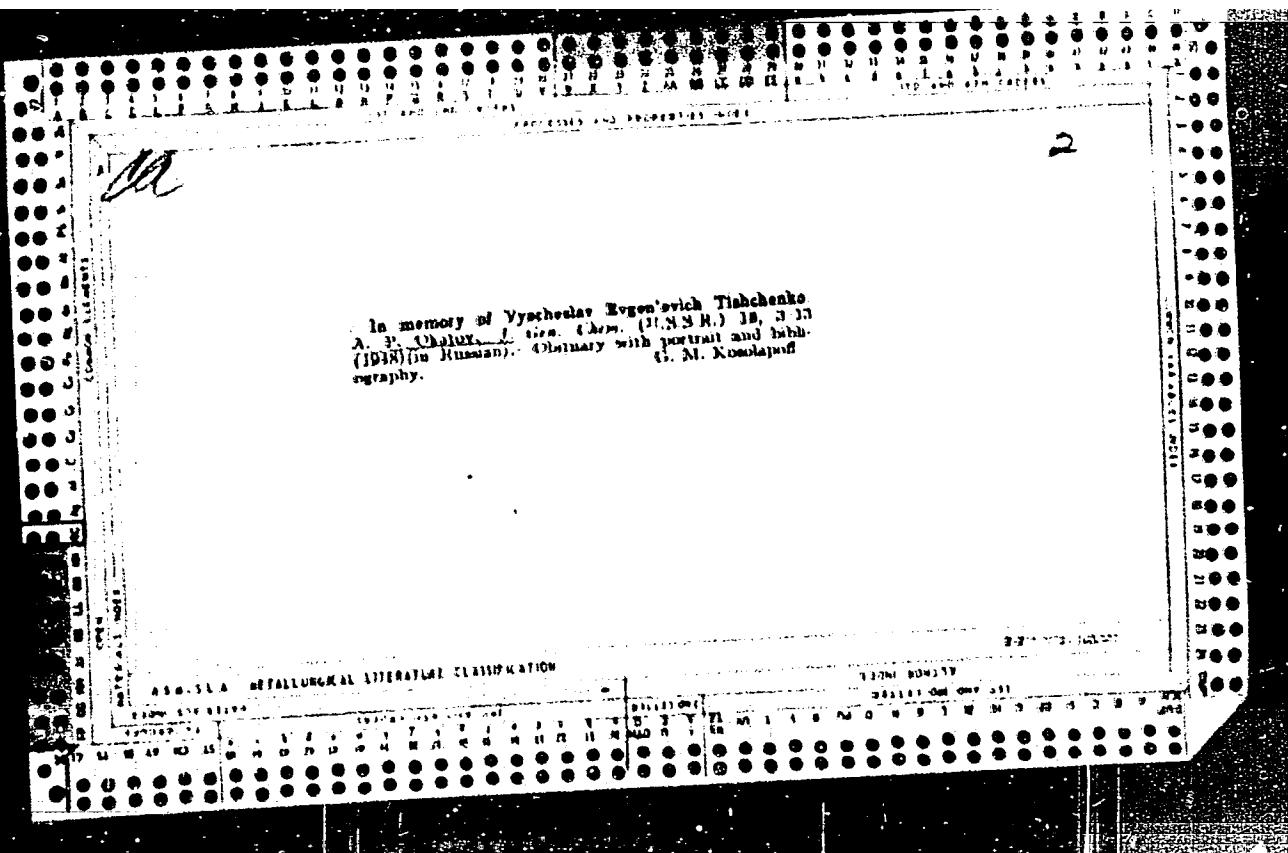


The control of cathodic-anodic processes. A. P. Iakobson (Leningrad Mifl. Elektrokhim. Akad.). J. Russ. Chem. Soc. USSR 1963, 379 (23-1936). It discusses his concept of electrochemical processes, which can be summarized as follows: All chem. processes proceeding with formation and discharge of ions are cathode-anode processes; of all possible processes in a given system only those actually take place which provide for the most pos. value of the work of discharge or of the work of formation of a mole of the product; the work of cathode processes is taken as pos., that of anodic processes as neg.. The process as a whole proceeds spontaneously only if its work is pos. ( $E$  is greater than 0). The conclusions drawn from this concept are: compds. of univalent Cu can exist only

in the dry state or as complex compds.; the ion of univalent Au is  $Au^{+}$ ; ions of univalent Au are  $Au^{+2}$ ; gold halides of univalent Au can exist in aq. solns. only in insignificant amounts, while among the trivalent Au halides only  $AuCl_3$  is stable in aq. soln.; the ion of univalent Hg is  $Hg^{+}$ ; oxidizing agents are substances which have the max. value of work of reduction among all other possible cathodic processes in the system; reducing substances are materials, the max. work of oxidation of which is most pos. among all the possible anodic processes in the system.

G. M. Kosolapoff

APPENDIX A. ADDITIONAL ALTERNATIVE CLASSIFICATION



OKATOV, A.P., doktor tekhnicheskikh nauk, professor.

[D.I.Mendeleev. Great Russian scientist] D.I.Mendeleev - velikii russkii  
uchenyi. Moskva, Izd-vo "Znanie", 1953. 39 p.  
(MLR 6:8)  
(Mendeleev, Dmitrii Ivanovich, 1834-1907)

ACC NR: AP7005145

SOURCE CODE: UR/0080/65/039/012/2832/2834

AUTHOR: Kryzhanovskiy, B. P.; Okatov, M. A.

ORG: none

TITLE: Increasing the conductivity of tin dioxide and indium oxide layers by means of fluoroorganic compounds

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 12, 1966, 2832-2834

TOPIC TAGS: tin compound, indium compound, fluorocarboxylic acid, electric conduction

ABSTRACT: In an attempt to find substances suitable for the introduction of fluorine into  $\text{SnO}_{2-x}$  coatings (used for preparing sight glasses) for the purpose of increasing the electric conductivity (and thus decrease the voltage of the current necessary for the heating of these glasses), suitable compounds were found to be  $\text{CF}_3\text{COOH}$  (MP 72.4°), perfluoropropionic acid  $\text{C}_2\text{F}_5\text{COOH}$  (MP 96°) and their ammonium salts.  $\text{SnO}_2$  layers with a transparency up to 75% and a resistance up to 10 ohms were obtained by adding these fluoroorganic additives to aqueous  $\text{SnCl}_4$ , which was decomposed to produce the coatings. Introduction of 2-7%  $\text{CF}_3\text{COOH}$  and  $\text{C}_2\text{F}_5\text{COOH}$  into  $\text{InCl}_3$  (from which  $\text{In}_2\text{O}_{3-x}$  coatings similar to  $\text{SnO}_{2-x}$  coatings are prepared) increases the conductivity 3 to 4-fold while preserving a high degree of transparency. It is concluded that this method of increasing the conductivity of tin dioxide and indium oxide layers can find extensive applications in the production of heated sight glasses and screens transparent to visible light and reflecting infrared radiation and superhigh frequency radio waves.

Card 1/2

UDC: 666.266.4

ACC NR: AP7003145

Orig. art. has: 1 table.

SUB CODE: 07/ SUBM DATE: 18Oct65/ ORIG REF: 007/ OTH REF: 001

Card 2/2

LILICH, L.S.; SMIRNOVA, R.S.; OKATOVA, A.I.

Water vapor pressure in the system  $Mg(ClO_4)_2 - HClO_4 - H_2O$ . Zhur.  
neorg.khim. 7 no.2:377-378 F '62. (MIRA 15:3)  
(Perchlorates) (Systems (Chemistry)) (Vapor pressure)

OKAT'YEV, A.I., inzh.

Modernizing crane equipment. Bezop. truda v prom. 5 no. 7:26-27  
(MIRA 14:6)  
Jl '61.

1. Ural'skiy vagonostroitel'nyy zavod.  
(Cranes, derricks, etc.—Technological innovations)

S/107/61/000/608/002/004  
D227/D305

AUTHOR: Okat'yev, A., Deputy Chief Mechanic

TITLE: A bridge crane is controlled by radio

PERIODICAL: Radio, no. 8, 1961, 51

TEXT: In 1961 the Ural'skiy vagonostroitel'nyy zavod (Urals Railroad Car Construction Plant) in Nizhnyy Tagil tested the Soviet Union's first experimental model of a radio control unit for an electromagnetic bridge crane with a lifting capacity of 10 tons. Tests were also carried out at minus temperatures. The unit consists of a transmitting and a receiving section and works on frequency modulation. The transmitting section, weighing only 3.3 kg, consists of a short-wave transmitter with antenna, a control panel, command frequency generators and a power pack with a storage battery. The control panel on the front of the transmitter has 4 switches, 2 tumbler switches and 1 push-button. Three of the switches control the load lifting mechanisms, travelling and traversing, while the fourth switch cuts the current to the electromagnetic plate. The push-button activates an electric bell on the crane, one tumbler supplies the control panel and transmitter with power from the battery and the other

Card 1/3

S/107/81/000/008/002/004  
D227/D305

A bridge crane...

tumbler serves to stop the crane in case of an emergency. The receiving section consists of a receiver (with antenna) tuned to the transmitter's carrier frequency, selective amplifiers, power packs, a deciphering device based on stepping selectors, an auxiliary relay and a rectifier. This section is powered from the a.c. grid. The deciphering device shapes the incoming signals and guides them into the proper channels to control the crane mechanisms via the auxiliary relay. The receiving unit is situated entirely on the crane gantry. Only the speeds relay and the "radio control"/"cabin control" switch are installed in the operator's cabin. With the help of the latter the crane can be controlled from the cabin in the normal way. All controls operate independently. The crane mechanisms are controlled by switches connected with the generators. One switch sends two separate signals corresponding to the motors' two directions of rotation. The electromagnetic plate is similarly controlled from a special switch. The electric motors are controlled by successively pressing the switches in one direction. The first impulse corresponds to first gear, the second impulse to second and the third to third gear. Changing down or reversing is effected by pressing the switch in the opposite direction. The radio apparatus has good anti-interference properties and functioned without

Card 2/3

A bridge crane...

S/107/61/000/008/002/004  
D227/D305

interference from stray signals emitted by a nearby thermal electric plant and electric steel furnaces. The control panel and transmitter can be strapped to the crane operator's chest, so that he can both operate the crane and act as "hook-man." Data accumulated from pilot operation of the experimental model will be used to design a second, industrial model of the radio control device.

There is 1 figure.

ASSOCIATION: Uralvagonzavod (Urals Railroad Car Plant)



Card 3/3

I.  
OKAT'YEV, A., gazomershchik

Efficient work. Sov.shakht. 10 no.4:10 Ap '61. (MIRA 14:9)

1. Shakhta "Shushhtalepskaya-1", Kuzbass.  
(Kuznetsk Basin--Coal mines and mining)

OKAT'YEV, M.K.

Study of optical apparatus intended to increase the angle of vision.  
Fiz. v shkole 21 no.2:56-58 Mrzdy '61. (MIRA 14:8)

1. Istobenskaya srednyaya shkola Kirovskoy oblasti.  
(Optical instruments)

OKAZOV, Kh.K.

Anatomical and morphological characteristics of Allium ursinum.  
Bot. zhur. 46 no. 5:700-705 My '61. (MIRA 14:7)

1. Severo-Osetinskiy sel'skokhozyaystvennyy institut, Ordzhonikidze.  
(Onions)

SYROMYASSKIY, V.A.; NOVIKOV, B.G.; BERSHTEYN, R.S.; PRITYKIN, D.P.;  
OKATYY, K.A.

Automatic control of the return cooling cycle in a sintering  
plant. Metallurg 10 no.6:6-8 Je '65. (MIRA 18:6)  
1. Zavod "Zaporozhstal".

L 16189-63

EWT(1), EWP(1), FNT(n), TUS AFTG, ASD, ESD-3, IJP(5) JZ

ACCESSION NR: AR3005165

S/0058/63/000/006/P001/E4:

SOURCE: RZh. Fizika, Abs. 6 E544

AUTHORS: Tarasenko, G. D.; Chazova, F. N.

TITLE: Some data on the electric conductivity of KCl crystal irradiated by light  
of an aluminum spark at high temperatures

CITED SOURCE: Uch. zap. Kabardino-Balkarsk. un-t, vy\*p. 16, 1962, 272-278

TOPIC TAGS: Potassium chloride crystal, electric conductivity, aluminum arc  
irradiation

TRANSLATION: The electric conductivity of single-crystal KCl with Pt electrodes was measured prior to irradiation, during the course of irradiation with a condensed Al-spark, and after cessation of the irradiation, in fields of 50--100 V/cm at temperatures 270--540°C. Freshly grown crystals, additively colored and discolored, were investigated. Depending on the intensity of the irradiation, the conductivity was either increased or decreased by the radiation, and when the air layer between the spark and the crystal was 1.5--2 cm thick, only weakly pulsating

Card 1/2

L 16189-63

ACCESSION NR: AR3005165

0

currents were observed. The decrease in the conductivity is a process that is reversible in time, and the conductivity increase obtained during the irradiation is conserved to a considerable degree after the cessation of the irradiation. Curves are presented for the time variation of the current flowing through the crystal, before and after the irradiation. It is assumed that when the crystal is irradiated two processes occur simultaneously: 1) the anion vacancies capture the electrons released as a result of irradiation, causing an increase in the number of free cation vacancies and a decrease in the crystal conductivity, and 2) the metastable levels of the electrons released by the radiation and by the thermal motion from the regular anions and negative ions of the impurity become attached to the positive ions of the impurities; this leads to a decrease in the number of the ordinary current carriers in the crystal and a drop in its conductivity. The first or second process may predominate, depending on the experimental conditions.

A. Poletayev.

DATE ACQ: 15Jul63

SUB CODE: PH

ENCL: 00

Card 2/2

OKEANOV, B.N., inzh.; AYZENSHTADT, Ye.B., inzh.; TROFIMOV, B.A., inzh.

Using magnetic amplifiers in automatic control systems of electric propeller drives. Sudostroenie 29 no.8:46-49 Ag '63.

(Ship propulsion, Electric)

(MIRA 16:10)

Oceanor, S. A.

✓ Device for registering the intensity of vaporization of a liquid by J. Oceanor, Trade Patent, Boston  
1907, U.S. Patent Office, Serial No. 825,155, No.  
1,112,330. It consists essentially of a spring balance carrying a hook on which the liquid is placed. The movement of the hook as the liquid is used is transmitted to a recording system by a system of relays. M. Hessel

Ran

OKHANOVA, G.P.

Fluorescence determination of porphyrins in urine in periodic medical examinations. Lab.delo 2 no.4:9-11 Jl-Ag '56. (MLRA 9:10)

1. Is kafedry obshchey gigiyeny (zav. - dotsent P.V.Dimitrevskiy)  
Severo-Osetinskogo meditsinskogo instituta.  
(FLUORESCENCE MICROSCOPY)  
(PORPHYRINURIA)

OKEANOVA, G. F.

137-58-5-11237

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 333 (USSR)

AUTHOR: Okeanova, G. F.

TITLE: The Effect of Some Working Conditions in Shops on the Health  
of Workers in the Lead Shop of the "Elektrotsink" Plant (O vli-  
yanii nekotorykh proizvodstvennykh usloviy na sostoyaniye  
zdror'ya rabochikh svintsovogo tsekha zavoda "Elektrotsink")

PERIODICAL: Inform. byul. Mosk. n.-i. in-t sanitarii i gigiyeny, 1957,  
Nr 6-7, p 83

ABSTRACT: Investigations revealed that the contents of Pb, SO<sub>2</sub>, and of C  
and N oxides in the air at various operating stations considerably  
exceeded the maximum permissible concentrations, and that in  
the period of 1950-1955 the incidence of disease among workers  
in the lead shop was 20-23% higher than among the workers in a  
construction shop at the same plant. On the basis of physical ex-  
aminations of the workers it is claimed that the earliest symp-  
toms of lead poisoning include the following: reduced hemoglobin  
content, polychromasia, and porphyrinuria. Improved medical  
facilities in conjunction with prophylactic measures of technical  
nature made it possible to reduce the incidence of disease by 50%.

Card 1/1

1. Industrial plants--Hazards    2. Sanitary engineering    Ye. L.

USCOMM-DC-55496

G. F. OKEANOV

USSR/Pharmacology. Toxicology. Toxicology

U-9

Abs Jour : Ref Zhur-Biol., No 7, 1958, 33120

Author : Okeanova G. F.

Inst : Not given

Title : On the Early Diagnosis of Lead Intoxications.

Orig Pub : Viachebn. delo, 1957, No 7, 759-760

Abstract : Four hundred fifty-two workers (males) in the ages of 20 to 40 years, working with lead for a period of 1 to 10 years were under observation for 2 years. Anemia (less than 60% Hb) was found in 75 to 80% of the workers in the early stages of lead intoxication; reticulocytosis in 100% of the workers; anidocytosis and poikilocytosis in 28 to 29% of the workers; polichromy in 52% of the workers; basophile granulation in 14% of the workers; porphyrinuria in the urine of 72 to 77% of the

Card 1/2

Card 1/1

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 12, p 205 (USSR) SOV/137-58-12-25539

AUTHOR: Okeanova, G. F.

TITLE: On the Effect of Certain Working Conditions on the Health of Lead-shop Workers at the "Electrotsink" Plant (O vliyanii nekotorykh proizvodstvennykh usloviy na sostoyaniye zdorov'ya rabochikh svintsovogo tsekha zavoda "Elektrotsink")

PERIODICAL: [Tr.] Sev-Osetinsk. med. in-ta, 1958, Vol 7, Nr 1, pp 111-118

ABSTRACT: Improvement of the medical service in conjunction with prophylactic measures of a technical nature have reduced the occupational sickness among lead-shop workers at the "Electrotsink" plant by 50% and have decreased the general occurrence of illness there appreciably. See also RZhMet 1958, Nr 5, abstract 11237

Yu. S.

Card 1/1

OKEANOVA, G. F., Cand of Med Sci -- (diss) "Special Features of Production Conditions by Health Workers of a Lead Shop of the "Elektotsink" Plant," Moscow, 1959, 13 pp (Central Institute for the Advanced Training of Physicians) (KL, 6-60, 126)

OKEANSYA, G.P. (Ordzhonikidze)

Influence of working conditions on disease incidence among  
workers of the lead shop of the "Electrotstink" factory. Gig.  
truda i prof.zab. 3 no.4:54 Jl-Ag '59, (MIRA 12:11)

1. Kafedra obshchey gigiyeny Severo-Osetinskogo meditsinskogo  
instituta.

(LEAD--METALLURGY--HYGIENIC ASPECTS)

SMECKA, A.

Principles of the accomplishment of road programs. p. 73.

PRAGMENITCI. (Wydawnictwa Komunikacyjne) Warsaw, Poland. Vol. 14, no. 3, March 1959.

Monthly List of East European Agreements (MEAI) LC, Vol. 8, no. 7, July 1959

Uncl.

OKECKI, S., general brygady, prof.

Activities of the air force and of the air defense troops in the  
Catalonian operation in Spain, December 23, 1938 - February 9, 1939.  
Wojsk przegl 13 no.8:41-53 Ag '60.

OKECKI, Stanislaw, prof.

Some remarks on technical military science. Problemy 19 no.5:  
295-302 '63.

1. General brygady, Warszawa.

OKENKA, Evzen, inz.

"Photoelectronics" by B. Magyari. Reviewed by Evzen Okenka.  
Automatizace 7 no. 3: Supplement:Technicka literatura  
insert Mr '64.

L 33196-66

ACC NK: AP6023813

SOURCE CGDE: CZ/0014/66/000/001/0011/0014

AUTHOR: Okonka, Evzen (Engineer)

28

B

ORG: none

TITLE: Circuit for directively oriented position sensing

SOURCE: Sdolovaci technika, no. 1, 1966, 11-14

TOPIC TAGS: circuit design, laboratory instrument, electronic circuit

ABSTRACT: The article discusses circuits used in measurement to automatically monitor the indicators of measuring instruments, points out the need and lists the advantages of such circuits and the requirements set for them. The circuits are presented and described in detail. Orig. art. has: 9 figures and 3 tables. [JPRS]

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 001 / O : REF: 003

Card 1/1 (b)

0915

75-421

*Oktyabr*, M.M.

AUTHOR: Antipov, K.I., Okenko, A.P., Engineers

133-1-20/24

TITLE: On Mechanical Testing of Carbon Structural Steels  
(Mekhanicheskiye ispytaniya uglerodistoy konstruktsionnoy stali)

PERIODICAL: Stal', 1958, no.1, p.82 (USSR).

ABSTRACT: It is pointed out that in preparation of specimens from carbon steels for tensile tests according to GOST 1497-42, the time elapsed between the preparation and testing of specimens is not specified, while this has an influence on the plastic properties of steel. An investigation carried out on the works in 1947 indicated that an improvement of the plastic properties of steels 25-35, 45, 55 and others on storing is due to the elimination of hydrogen (table). For the above reason, it is proposed to introduce tempering of specimens for 2 hours at 200 °C before testing into the standards. It is stated in the editorial note that the problem requires additional study and views of consumers should be obtained. The following participated in the work: Engineers V.U. Fedorov, V.A. Ivanchenko and Ye.A. Burnayeva. There is 1 table.

ASSOCIATION: "Krasnyy Oktyabr" Works (Zavod "Krasnyy Oktyabr")

AVAILABLE: Library of Congress  
Card 1/1

OKENKO, A.P.; IVANENKOV, M.I.

Electron microscopy in the laboratory of the "Krasnyi oktyabr'" plant. Zav.lab. 29 no.8:1018 '63. (MIRA 16:9)  
(Metallurgical laboratories) (Electron microscopy)

OISINOV, A.P.; SHACHKOVA, V.K.

Brittleness of Kh25T steel. Metalloved. i term. obr. no. 4:  
58-60 O '64. (MIRA 17:12)

1. Volgogradskiy zavod "Krasnyy Oktiabr".

L 43850-65

SNT(m)/DNT(w)/DNA(c)/T/SNP(t)/SNP(z)/SNP(b) MJW/JD

ACCESSION NR: AP4048781

S/0126/64/018/004/0639/0840

AUTHOR: Okenko, A. P.TITLE: Nature of the "brittleness 475" in high-chromium steelsSOURCE: Fizika metallov i metallocedeniye, v. 18, no. 4, 1964, 639-640TOPIC TAGS: high-chromium steel, brittleness, dislocation pair, solid solution decomposition

ABSTRACT: The kinetics of the development, and the nature of 475C brittleness in high-chromium commercial  $\text{Ni}^{28\%}\text{Cr}^{20\%}$  steel and in Fe-28% Cr alloy (vacuum melted) was investigated. In addition to the usual metallurgical testing, the structure was electron microscopically investigated. Two development stages of brittleness were found. One stage develops in the beginning of tempering at 400°C (0 to 15 min.), the second stage begins after 1 hour of tempering (400°C to 475C (0 to 15 min.). After 1 hour of tempering at the temperature of maximum brittleness (475C), dislocation pairs are formed. The latter are considered to be connected with ordering. It is shown

Card 1/2

L 43850-65  
ACCESSION NR: AP4048761

lieved that the brittleness at the first stage is connected with ordering, and at the second stage, with disintegration of the solid solution. Orig. art. has figures.

ASSOCIATION: "SNICHERMET im. I. P. Bardina; Zavod Plast" "Krasny Oktjabr", Volgograd.

SUBMITTED: 16Nov83

ENCL: 00

SUB CODE: MM

NR REF SOV: 002

OTHER: 003

Card 2/2

OKENKO, A.P.

Investigating the brittleness of high-chromium steel. Probl. metal-  
loved. i fis. met. no.8:382-394 '64. (MIRA 18:7)

L 31854-68 EAT(m)/EWP(w)/EPt(c)/EMB(n)-2/EWA(d)/T/EWP(t)/ENI(b) PR-d/1...  
MJO/JD/GG

ACCESSION NR: AP5004275

S/0126/65/019/001/0140/0141

AUTHOR: Lyashchenko, B. G.; Okenko, A. P.

TITLE: A neutron-structure analysis of Kh25T steel

SOURCE: Fizika metallov i metallovedeniye, v. 19, no. 1, 1965, 140-141

TOPIC TAGS: high chromium steel, steel toughness, steel brittleness, coldness, ferrite steel, neutron diffraction pattern, steel superstructure, size scattering, iron chromium system, steel Kh25T

ABSTRACT: This study involved an investigation of high-chromium ferrite steel (Cr=24.7; Ti=0.68 and C=0.08%). Series of tests were made of the toughness of the steel at temperatures characterizing the cold shortness threshold after different periods of exposure to 475°C. It was found that the so-called "475°C brittleness" produced in Kh25T steel is accompanied by a reduced electrical resistance, some increase in the modulus of elasticity, and an increase in the lattice parameter and specific volume. The nature of the "475°C brittleness" in this project was studied by the method of neutron diffraction analysis. The neutron scattering amplitudes do not depend on the atomic number of the element and the scattering capacity of the atoms of two metals appearing next to each other.

Card 1/2

31854-65

ACCESSION NR: AP5004275

other in the periodic table may vary a great deal. This makes it possible to record the formation of a superstructure in the iron-chromium system. The development of brittleness in high-chromium ferrite steel within a 400-500°C. temperature range is associated with the formation of an Fe<sub>3</sub>Cr superstructure. "The authors are grateful to Prof. R. I. Entin for his valuable comments and advice in the course of this project." Orig. art. has: 2 figures.

ASSOCIATION: Ternitichermet Im. I. P. Bardina

SUBMITTED: 20Apr64

ENCL: 00

SUB CODE: JM

NO REF Sov: 001

OTHER: 005

Card 2/2

L-36100-65 ENT(m)/BWP(u)/DWA(d)/T/BWP(t)/BWP(k)/BWP(b)/DWA(e) - PI 4  
EJM/JD/BW

ACCESSION NR: AP4047812

S/0129/64/000/010/0008/0060

AUTHOR: Olenko, A. P.; Shashkova, V. K.

TITLE: The brittleness of Kh25T steel

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 10, 1964  
59-60

TOPIC TAGS: brittleness, impact toughness, hardness/ Kh25T steel

ABSTRACT: The authors discuss the kinetics of brittleness as it develops in Kh25PMAO and recommend the optimal heat treatment for hot-rolled 8, 10 and 20 mm thick sheets. Maximum brittleness was observed at 450 to 500°C (see Fig. 1 of Enclosure 1) within the initial 1 to 2 minutes and it was accompanied by a drastic decline in impact toughness and maximum increase in hardness. In finished 10 to 25 mm thick sheets brittleness was eliminated by repeated heating at 780°C and subsequent drastic cooling. Orig. art. has: 2 figures.

ASSOCIATION: Volgogradskiy zavod "Krasnyy Oktjabr" (Volgograd "Red October")

Card 1/1

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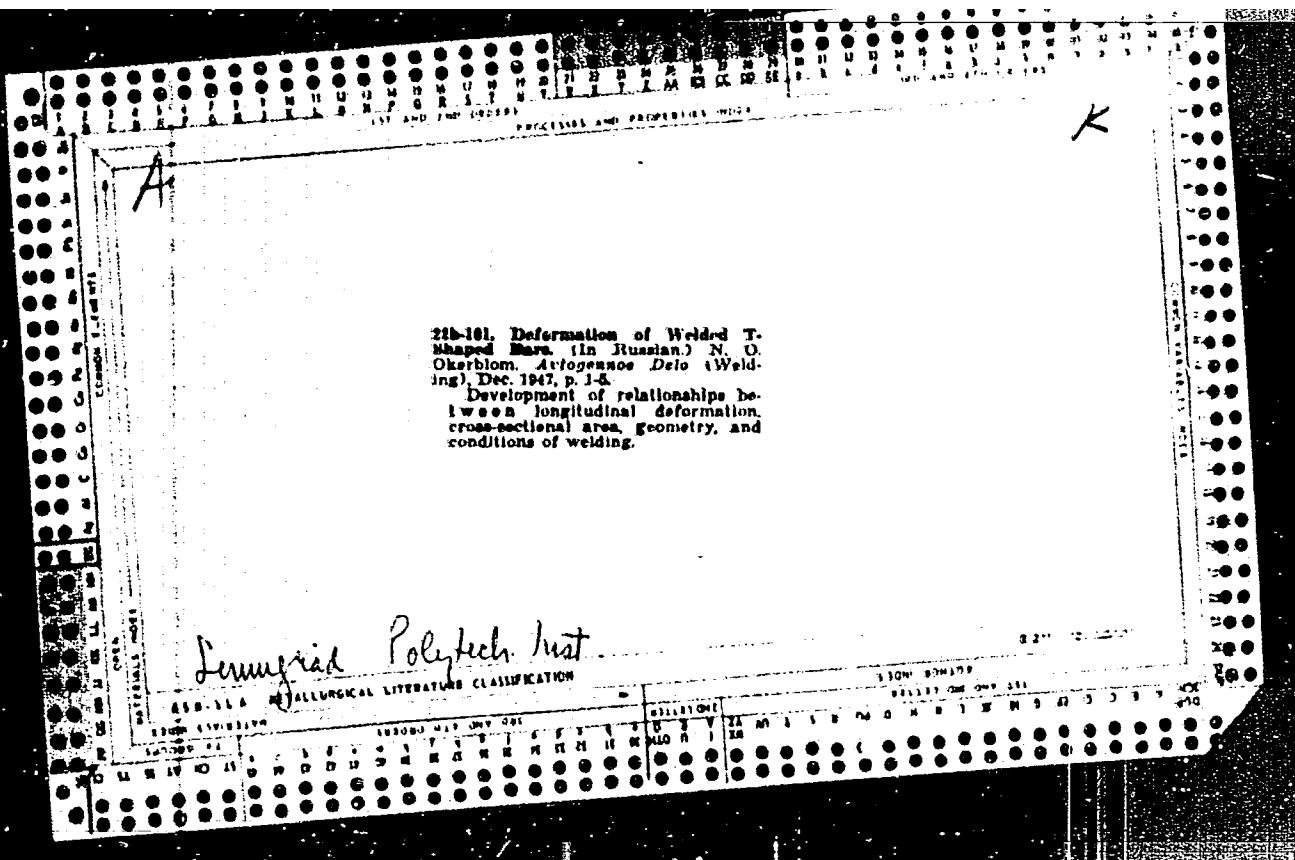
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